

REMARKS/ARGUMENTS

In the Office Action, the Examiner noted that claims 1-43 are pending in the application. The Examiner additionally stated that claims 1-40 and 43 are rejected. By this amendment, claims 20-21 and 41 have been cancelled; claims 1, 8, 13, 22-23, 32-33 and 43 have been amended; and new claims 44-83 have been added. Hence, claims 1-19, 22-40 and 42-83 are pending in the application.

Applicant hereby requests further examination and reconsideration of the application, in view of the foregoing amendments.

NB: Applicant notes that the following references were submitted in a previous IDS and the Examiner initialed the other references included in the IDS but did not initial these references:

1. EP0402787 A2 to Charles P. Ryan with a publication date of 12-19-1990
2. FARCY A ET AL: "Dataflow analysis of branch mispredictions and its application to early resolution of branch outcomes" MICRO-31. PROCEEDINGS OF THE 31ST. ANNUAL ACM/IEEE INTERNATIONAL SYMPOSIUM ON MICROARCHITECTURE. DALLAS, TX, NOV. 30 - DEC. 2, 1998, PROCEEDINGS OF THE ANNUAL ACM/IEEE INTERNATIONAL SYMPOSIUM ON MICROARCHITECTURE, LOS ALMITOS, CA : IEEE COMP. SOC, US, 30 November 1998 (1998-11-30), pages 59-68, XP010318259 ISBN: 0-8186-8609-X * page 64, paragraph 3 - page 66, paragraph 3.3*
3. Jim Handy, The Cache Memory Book, 2nd Edition, 1998, pages 47 and 222

Applicant has submitted a new IDS on 5/19/2006 that includes the references. Applicant respectfully requests the Examiner to indicate that he has considered the references along with the other references included in the new IDS.

In the Specification

Applicant has amended the specification to secure a substantial correspondence between the claims amended herein and the remainder of the specification. No new matter is presented.

In the Claims

Claim Objections

The Examiner objected to claim 14 stating it is unclear whether the limitation “an early register file” is different from “a storage element” as claimed in claim 1. Applicant states that the element “an early register file” recited in claim 14 is different from “a storage element” as recited in claim 1.

The Examiner objected to claim 29 noting that the element “early execution logic” is already recited in parent claim 22. Applicant has amended claim 22 (and claims 23 and 32) to recite “conditional execution logic” to distinguish from the “early execution logic” recited in claim 29.

Rejections Under 35 U.S.C. §101

The Examiner rejected claims 21 and 43 under 35 U.S.C. 101 as being directed to non-statutory subject matter. Applicant has canceled claim 21 and amended claim 43 to recite statutory subject matter.

Rejections Under 35 U.S.C. §112, second paragraph

The Examiner rejected claims 8, 13, 20 and 21 under 35 U.S.C. 112, second paragraph as being indefinite. Applicant has canceled claims 20 and 21, and has amended claims 8 and 13 to more definitely claim the subject matter which Applicant regards as his invention.

Allowable Subject Matter

The Examiner objected to claims 41 and 42 as being dependent upon a rejected base claim, but indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant appreciates the Examiner’s consideration and indications of allowability of these claims.

By this amendment, the allowable limitations of claim 41 have been incorporated into the language of claim 33 and claim 41 has been cancelled.

By this amendment, the allowable limitations of claim 42 have been incorporated into the language of new claim 74, which also recites the limitations of original claim 33. New claims 75-82 depend from new claim 74 and recite further limitations.

By this amendment, limitations similar to the allowable limitations of claim 41 have been incorporated into the language of claim 1. Applicant respectfully submits that the prior art does not teach or fairly suggest an apparatus for generating early status flags to enable early execution of a conditional instruction in a pipeline microprocessor having architected status flags that includes logic that updates the early status flags by copying the architected status flags to the early status flags and validates the early status flags if the microprocessor pipeline is flushed.

By this amendment, limitations similar to the allowable limitations of claim 42 have been incorporated into the language of new claim 44, which also recites the limitations of original claim 1. New claims 45-62 depend from new claim 44 and recite further limitations. Applicant respectfully submits that the prior art does not teach or fairly suggest an apparatus for generating early status flags to enable early execution of a conditional instruction in a pipeline microprocessor having architected status flags that includes logic that updates the early status flags by copying the architected status flags to the early status flags and validates the early status flags if all status flag-modifying instructions present in the microprocessor pipeline below a stage in which the early status flags are generated, if any, have updated architected status flags of the microprocessor.

By this amendment, limitations similar to the allowable limitations of claim 41 have been incorporated into the language of claim 22. Applicant respectfully submits that the prior art does not teach or fairly suggest a pipeline microprocessor having control logic that updates early status flags by copying architected status flags to early status flags and validates the early status flags if the microprocessor pipeline is flushed.

By this amendment, limitations similar to the allowable limitations of claim 42 have been incorporated into the language of new claim 63, which also recites the limitations of original claim 22. New claims 64-73 depend from new claim 63 and recite further limitations. Applicant respectfully submits that the prior art does not teach or fairly

suggest a pipeline microprocessor having control logic that updates early status flags by copying architected status flags to the early status flags and validates the early status flags if all status flag-modifying instructions present in the microprocessor pipeline below a stage in which the early status flags are generated, if any, have updated architected status flags of the microprocessor.

By this amendment, limitations similar to the allowable limitations of claim 41 have been incorporated into the language of claim 43. Applicant respectfully submits that the prior art does not teach or fairly suggest a computer program embodied on a computer-readable medium having computer-readable program code for providing an apparatus for generating early status flags to enable early execution of a conditional instruction in a pipeline microprocessor having architected status flags that includes logic that updates the early status flags by copying the architected status flags to the early status flags and validates the early status flags if the microprocessor pipeline is flushed.

By this amendment, limitations similar to the allowable limitations of claim 42 have been incorporated into the language of new claim 83, which also recites the limitations of original claim 43. Applicant respectfully submits that the prior art does not teach or fairly suggest a computer program embodied on a computer-readable medium having computer-readable program code for providing an apparatus for generating early status flags to enable early execution of a conditional instruction in a pipeline microprocessor having architected status flags that includes logic that updates the early status flags by copying the architected status flags to the early status flags and validates the early status flags if all status flag-modifying instructions present in the microprocessor pipeline below a stage in which the early status flags are generated, if any, have updated architected status flags of the microprocessor.

CONCLUSIONS

In view of the arguments advance above, Applicant respectfully submits that claims 1-19, 22-40 and 42-83 are in condition for allowance. Reconsideration of the rejections is requested, and allowance of the claims is solicited.

Applicant earnestly requests that the Examiner contact the undersigned practitioner by telephone if the Examiner has any questions or suggestions concerning this amendment, the application, or allowance of any claims thereof.

Respectfully submitted,

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Date: _____